STATE OF CONNECTICUT

DEPARTMENT OF PUBLIC HEALTH

Circular Letter DEH #99-19

MEMORANDUM

TO: **Directors of Health**
Chief Sanitarians
Professional Engineers
Licensed Installers

FROM: **Frank A. Schaub**
Supervising Sanitary Engineer
Environmental Engineering Section

DATE: **July 22, 1999**

SUBJECT: **Section 19-13-B100a Updates**

It has been ten months since the revised 19-13-B100a was approved and adopted as a regulation. The feedback thus far has been relatively good and trust that we are all enforcing this regulation with the same understanding. As with any change, there have been a few items which were brought to our attention by Sanitarians, Installers, and Engineers and the purpose of this memo is to share with all of you our responses to their questions which include the following:

1. Limited Soil Testing for Accessory Structures - The most contentious aspect of B100a expressed to us by both homeowners and sanitarians is the need to do soil testing for construction of accessory structures, particularly additions or expansions of existing decks. The intent of this regulation is to be sure we preserve a code complying or potential repair area before giving up any land for development of the property. Property owners have responded with:

   "But the lot is 2 acres in size and the sewage disposal system is located on the other side of the house, so why do we have to do any testing at all?"

   The fact that lots may be large in size may not necessarily mean they can easily accommodate a code complying or acceptable potential repair area. On the other hand, we realize health departments and properly owners are concerned about the added expense of soil testing when data in the files is insufficient to make the proper determination. For that reason, we have advised health departments that they may choose to accept limited soil testing on lots where accessory structures are proposed.

   To make a determination for suitability of a code complying or potential repair area, we need to know basic information. Is there ledge rock less than 4 feet from the surface of the ground, is there at least two feet of naturally occurring soil, is the percolation rate in natural soils slower than 60 minutes per inch, is groundwater or soil mottling observed less than 18 inches from the surface of the ground, is the existing system adequately separated from the proposed structure? Some property owners have requested to dig their own shallow observation holes, down to 4 feet deep, to demonstrate soil suitability without causing major disturbance to their property. If the health department staff are able to record pertinent soil data and a code complying or potential repair area can be identified on the subject property with the information gathered, the accessory structure could be approved .

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P.O. Box 340308 Hartford, CT 06134
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If you have soil test data from adjacent properties and can reasonably confirm similar soil conditions exist on the lot for which the accessory structure has been requested, we would not object to the health department or a licensed installer using the data from the shallow hole and percolation tests to prepare a sketch showing either a code complying area or potential repair area together with the location of the existing system. For all accessory structures, the property file should contain a sketch prepared by a licensed professional engineer, a licensed installer or health department staff clearly demonstrating the existence of a code complying or potential repair area, location of existing system and location of proposed accessory structure so that compliance with B100a can be demonstrated.

2. Existing Screened Porches - Any change to an existing screened porch which permits four season use or modifies the porch to conventional habitable space would be considered an addition. Under Chapter 2-Building Definitions in the recently revised CT Building Code, Section 202, an addition is defined as "an increase in building area, aggregate floor area, height or number of stories of a structure." The heating, insulating or extension of plumbing to facilitate the increase of aggregate floor area to a habitable structure would be considered an addition. The installation of screens, storm windows, sliding glass doors, sky lights or electrical service for outlets, lights or ceiling fans, etc., in an existing covered porch (roof exists) would not be considered an addition as those modifications would not facilitate four season use of the porch. The Building Code, under the same section, would consider these activities as alterations ("any construction or renovation to an existing structure other than repair or addition").

3. House Teardown /Rebuilding - We have received numerous inquires on how to handle the razing of existing structures and their proposed rebuilding. In the past, we have responded to this question in concert with the State Building Code which classified structure remodeling or rebuilding in excess of 50 percent of the value of the property as new construction. Once classified as new construction, health departments then required both primary and reserve leaching areas before approval to rebuild or significantly renovate an existing structure was granted. With the adoption of B100a and the recent passing of the revised Connecticut Building Code, our assessment and response to these types of inquires has been modified. For discussion purposes, we will review three typical scenarios as follows:

   (a) Teardowns/Rebuild With The Exact Same Footprint - If a property owner requests to teardown or significantly rebuild an existing structure of the exact same size for the exact same use and with design flows that remained unchanged on the footprint of the existing structure, that would be considered simple replacement and would not be subject to any review or approval by Section 19-13 B100a. Although no soil testing would be required, we would recommend that the health department review their files to determine if any information is available concerning the existing septic system. If no information is available or if the information available indicates the existence of a significantly undersized septic system, the property owner should be advised of this information. It would obviously be in the best interest of a property owner to know, prior to investing perhaps hundreds of thousands of dollars, whether or not their property can support a properly sized septic system. Even if the existing lot is determined to be unsuitable or has a potential repair area which cannot meet Items 1-3 of Subsection (c) of B100a, the rebuilding should still be approved as a simple exact replacement.

(b) House Teardown/Rebuilding On Same Foundation With Building Additions - If a property owner wishes to teardown the existing structure and rebuild it with new additions on the existing foundation, a new foundation or, an expanded foundation, the proposed house plans must be reviewed to determine which section of B100a is applicable. If the revised house plans show the same number of bedrooms, then, either a code complying area or a potential repair area meeting all requirements of items 1-5 in subsection (c) of B100a must be provided. If the rebuilt home with additions results in a net increase in bedrooms, then a code complying area must be identified on the property.

(c) Teardown/Rebuilding Of Structure With Or Without Additions on a New Foundation at Different Location - Property owners have requested approval to completely teardown an existing structure and rebuild it in a different part of the property. The structure is served by an existing sewage disposal system and they request to reconnect to that system after reconstruction is completed. For discussion purposes, let us assume that existing data or recent soil testing has identified a suitable code complying area for either the existing number of bedrooms in the old structure or some increased number of bedrooms requested for the enlarged structure. Once a determination has been made that a code complying area exists on the property, Subsection (c) clearly states "Portions of the property outside this designated area may be utilized for further development of the property." That means a property owner could elect to build very large additions to the existing structure provided the code complying area was sized for the total number of bedrooms. With this realization, it becomes obvious that approval for relocation of a house which has been torn down and is to be reconstructed at a new location would be acceptable under the provisions of 19-13-B100a providing the code complying area was identified and the relocation maintained separation distances required in the current Technical Standards. The 100% reserve area is not required in addition to the Code Complying Area as defined in the regulation.

What is similar with all of these three examples is that all three may result in totally new structures being served by septic systems of known or unknown size. A review of the town building files months or years later may indicate the structure is new or relatively young with no reference to the well or septic system which could be twenty or perhaps forty years old. For that reason, consideration should be given to placing a caveat on the land records advising title searchers to review the health department files concerning the sewage disposal system and water supply, where applicable. That would make prospective property owners aware of the age of the existing systems and the suitability for future septic repair based upon the size of the potential repair area or the code complying area in the health department files.

4. Rooms In The Basement - Another common way property owners alter residential structures is to make modifications to existing basement areas, particularly where walk-out doors and windows exist or can be provided. In discussing this matter with the State's Building Officials Office, we have concluded that this type of activity would not be deemed a house addition. Proposals for basement areas frequently request approval for exercises rooms, family rooms, offices, bedrooms and workshops. Construction activity may include the installation of a one half bath or a full bath with shower or tub. The local building official will obviously review plans to determine whether or not the space can be considered habitable with respect to the use proposed. Health department staff must review plans to determine whether construction activity falls within the jurisdiction of B100a.

In many cases, proposed construction activity in the basement may simply be considered an alteration which, in the revised Building Code, is defined as "any construction or renovation to an existing structure other than a repair or addition." However, if the renovation results in the creation of a new proposed or potential bedroom, Section 19-13-B100a (c), definition (3), Change in Use, would apply with respect to an increase in design flow. For that reason, bedrooms proposed in the basement would fall under subsection (b) and require that the property owner identify a code complying area for the total number of bedrooms in the renovated structure. On rare occasions, a full bath is shown as part of basement alterations even though none of the basement rooms are classified as bedrooms. Health departments must carefully analyze these plans and make a determination as to whether or not these subdivided spaces could reasonably be classified as bedrooms. One of the proposed changes to the Technical Standards effective January 1, 2000 will be to include a definition for a bedroom as follows:

> Bedroom means those areas within a residential dwelling which have the potential to be utilized as a sleeping area on a consistent basis. To be deemed a bedroom , the room must meet all of the following standards:
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> 1. Be a habitable or planned habitable space per Building Code requirements. Planned habitable spaces would include those areas which contain the appropriate "roughed-in" mechanicals, such as, heating ducts, hot water lines, or, plumbing waste lines, etc., but are not currently "finished" to meet Building Code requirements for habitable space.
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> 2. Provide privacy to the occupants.
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> 3. Full bathroom facilities (containing either a bathtub or shower) are conveniently located to the bedroom served. Convenience in this case means on the same floor as the bedroom or directly accessed from a stairway.
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> 4. Entry is from a common area, not through a room already deemed a bedroom.

It is important that we protect public health, our ground and surface water supplies, and the value of properties in Connecticut by performing effective enforcement of Section 19-13-B100a. It would be ideal if we could identify code complying areas on every property in order to let property owners meet their future demands for building additions, pools, tennis courts, and other structures. Where code complying areas are not possible, the preservation of potential repair areas is very important and is helpful to property owners in determining the extent of non change of use (e.g., no increase in flow) additions they may realize on a particular property. On small lots where inadequate potential repair areas exist, it must be understood that no building additions may be approved and that accessory structures may only be approved if the accessory structure does not reduce the potential repair area. The staff of the Environmental Engineering Section appreciate the feedback and input many of you have provided us with respect to the enforcement of Section 19-13-B100a.

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